SEQUENCE LISTING

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<120> ULTRA-SENSITIVE DETECTION SYSTEMS


<130> 01173.0003U2

<150> 60/224,939
<151> 2000-08-11

<150> 60/283,498
<151> 2000-04-12

<160> 33

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 1
Cys Gly Gly Gly Gly Asp Pro Gly Gly Gly Gly Arg
 1               5                   10

<210> 2
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 2
Ala Gly Ser Leu Asp Pro Ala Gly Ser Leu Arg
 1               5                   10

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<210> 3
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 3
Ala Gly Ser Met Leu Asp Pro Ala Gly Ser Met Leu Arg
 1               5                   10


<210> 4
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 4
Ala Gly Ser Leu Ala Asp Pro Gly Ser Leu Arg
 1               5                   10

<210> 5
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 5
Ala Leu Ser Leu Ala Asp Pro Gly Ser Gly Arg
 1               5                   10

<210> 6
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 6
Ala Leu Ser Leu Gly Asp Pro Ala Ser Gly Arg
 1               5                   10

<210> 7
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<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 7
Ala Gly Ser Asp Pro Leu Ala Gly Ser Leu Arg
 1               5                   10

<210> 8
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 8
Ala Asp Pro Gly Ser Leu Ala Gly Ser Leu Arg
 1               5                   10

<210> 9
<211> 357
<212> PRT
<213> Homo sapiens

<400> 9
Met Ser Ala Ile Gln Ala Ala Trp Pro Ser Gly Thr Glu Cys Ile Ala
 1               5                   10                  15
Lys Tyr Asn Phe His Gly Thr Ala Glu Gln Asp Leu Pro Phe Cys Lys
            20                  25                  30
Gly Asp Val Leu Thr Ile Val Ala Val Thr Lys Asp Pro Asn Trp Tyr
            35                  40                  45
Lys Ala Lys Asn Lys Val Gly Arg Glu Gly Ile Ile Pro Ala Asn Tyr
        50                  55                  60
Val Gln Lys Arg Glu Gly Val Lys Ala Gly Thr Lys Leu Ser Leu Met
65                  70                  75                  80
Pro Trp Phe His Gly Lys Ile Thr Arg Glu Gln Ala Glu Arg Leu Leu
            85                  90                  95
Tyr Pro Pro Glu Thr Gly Leu Phe Leu Val Arg Glu Ser Thr Asn Tyr
            100                 105                 110
Pro Gly Asp Tyr Thr Leu Cys Val Ser Cys Asp Gly Lys Val Glu His
            115                 120                 125
Tyr Arg Ile Met Tyr His Ala Ser Lys Leu Ser Ile Asp Glu Glu Val
        130                 135                 140
Tyr Phe Glu Asn Leu Met Gln Leu Val Glu His Tyr Thr Ser Asp Ala
145                 150                 155                 160
Asp Gly Leu Cys Thr Arg Leu Ile Lys Pro Lys Val Met Glu Gly Thr
                165                 170                 175
```

```
Val Ala Ala Gln Asp Glu Phe Tyr Arg Ser Gly Trp Ala Leu Asn Met
            180                 185                 190
Lys Glu Leu Lys Leu Leu Gln Thr Ile Gly Lys Gly Glu Phe Gly Asp
            195                 200                 205
Val Met Leu Gly Asp Tyr Arg Gly Asn Lys Val Ala Val Lys Cys Ile
    210                 215                 220
Lys Asn Asp Ala Thr Ala Gln Ala Phe Leu Ala Glu Ala Ser Val Met
225                 230                 235                 240
Thr Gln Leu Arg His Ser Asn Leu Val Gln Leu Leu Gly Val Ile Val
            245                 250                 255
Glu Glu Lys Gly Gly Leu Tyr Ile Val Thr Glu Tyr Met Ala Lys Gly
            260                 265                 270
Ser Leu Val Asp Tyr Leu Arg Ser Arg Gly Arg Ser Val Leu Gly Gly
            275                 280                 285
Asp Cys Leu Leu Lys Phe Ser Leu Asp Val Cys Glu Ala Met Glu Tyr
    290                 295                 300
Leu Glu Gly Asn Asn Phe Val His Arg Asp Leu Ala Ala Arg Asn Val
305                 310                 315                 320
Leu Val Ser Glu Asp Asn Val Ala Lys Val Ser Asp Phe Gly Leu Thr
            325                 330                 335
Lys Glu Ala Ser Thr Pro Arg Thr Arg Ala Ser Cys Gln Ser Ser Gly
            340                 345                 350
Gln Pro Leu Arg Pro
            355


<210> 10
<211> 536
<212> PRT
<213> Homo sapiens

<400> 10
Met Gly Ser Asn Lys Ser Lys Pro Lys Asp Ala Ser Gln Arg Arg Arg
  1             5                 10                  15
Ser Leu Glu Pro Ala Glu Asn Val His Gly Ala Gly Gly Gly Ala Phe
            20                  25                  30
Pro Ala Ser Gln Thr Pro Ser Lys Pro Ala Ser Ala Asp Gly His Arg
            35                  40                  45
Gly Pro Ser Ala Ala Phe Ala Pro Ala Ala Ala Glu Pro Lys Leu Phe
    50                  55                  60
Gly Gly Phe Asn Ser Ser Asp Thr Val Thr Ser Pro Gln Arg Ala Gly
65                  70                  75                  80
Pro Leu Ala Gly Gly Val Thr Thr Phe Val Ala Leu Tyr Asp Tyr Glu
            85                  90                  95
Ser Arg Thr Glu Thr Asp Leu Ser Phe Lys Lys Gly Glu Arg Leu Gln
            100                 105                 110
Ile Val Asn Asn Thr Glu Gly Asp Trp Trp Leu Ala His Ser Leu Ser
            115                 120                 125
Thr Gly Gln Thr Gly Tyr Ile Pro Ser Asn Tyr Val Ala Pro Ser Asp
            130                 135                 140
Ser Ile Gln Ala Glu Glu Trp Tyr Phe Gly Lys Ile Thr Arg Arg Glu
145                 150                 155                 160
Ser Glu Arg Leu Leu Leu Asn Ala Glu Asn Pro Arg Gly Thr Phe Leu
            165                 170                 175
```

```
Val Arg Glu Ser Glu Thr Thr Lys Gly Ala Tyr Cys Leu Ser Val Ser
            180                 185                 190
Asp Phe Asp Asn Ala Lys Gly Leu Asn Val Lys His Tyr Lys Ile Arg
            195                 200                 205
Lys Leu Asp Ser Gly Gly Phe Tyr Ile Thr Ser Arg Thr Gln Phe Asn
    210                 215                 220
Ser Leu Gln Gln Leu Val Ala Tyr Tyr Ser Lys His Ala Asp Gly Leu
225                 230                 235                 240
Cys His Arg Leu Thr Thr Val Cys Pro Thr Ser Lys Pro Gln Thr Gln
                245                 250                 255
Gly Leu Ala Lys Asp Ala Trp Glu Ile Pro Arg Glu Ser Leu Arg Leu
            260                 265                 270
Glu Val Lys Leu Gly Gln Gly Cys Phe Gly Glu Val Trp Met Gly Thr
            275                 280                 285
Trp Asn Gly Thr Thr Arg Val Ala Ile Lys Thr Leu Lys Pro Gly Thr
    290                 295                 300
Met Ser Pro Glu Ala Phe Leu Gln Glu Ala Gln Val Met Lys Lys Leu
305                 310                 315                 320
Arg His Glu Lys Leu Val Gln Leu Tyr Ala Val Val Ser Glu Glu Pro
                325                 330                 335
Ile Tyr Ile Val Thr Glu Tyr Met Ser Lys Gly Ser Leu Leu Asp Phe
            340                 345                 350
Leu Lys Gly Glu Thr Gly Lys Tyr Leu Arg Leu Pro Gln Leu Val Asp
            355                 360                 365
Met Ala Ala Gln Ile Ala Ser Gly Met Ala Tyr Val Glu Arg Met Asn
    370                 375                 380
Tyr Val His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Gly Glu Asn
385                 390                 395                 400
Leu Val Cys Lys Val Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu Asp
                405                 410                 415
Asn Glu Tyr Thr Ala Arg Gln Gly Ala Lys Phe Pro Ile Lys Trp Thr
            420                 425                 430

Ala Pro Glu Ala Ala Leu Tyr Gly Arg Phe Thr Ile Lys Ser Asp Val
            435                 440                 445
Trp Ser Phe Gly Ile Leu Leu Thr Glu Leu Thr Thr Lys Gly Arg Val
    450                 455                 460
Pro Tyr Pro Gly Met Val Asn Arg Glu Val Leu Asp Gln Val Glu Arg
465                 470                 475                 480
Gly Tyr Arg Met Pro Cys Pro Pro Glu Cys Pro Glu Ser Leu His Asp
                485                 490                 495
Leu Met Cys Gln Cys Trp Arg Lys Glu Pro Glu Glu Arg Pro Thr Phe
            500                 505                 510
Glu Tyr Leu Gln Ala Phe Leu Glu Asp Tyr Phe Thr Ser Thr Glu Pro
            515                 520                 525
Gln Tyr Gln Pro Gly Glu Asn Leu
    530                 535
```

<210> 11
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 11
Cys Gly Ala Gly Ser Asp Pro Leu Ala Gly Ser Leu Arg
 1               5                   10

<210> 12
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 12
Gly Ser Trp Phe Ser Gly Met Cys Ala Arg
 1               5                   10

<210> 13
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 13
Tyr Phe Met Thr Ser Gly Cys Asp Pro Gly Gly Arg
 1               5                   10

<210> 14
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 14
Tyr Phe Met Thr Ser Gly Asp Pro Cys Gly Gly Arg
 1               5                   10

<210> 15
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 15
Tyr Phe Met Thr Ser Asp Pro Gly Cys Gly Gly Arg
 1               5                  10

<210> 16
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 16
Tyr Phe Met Thr Asp Pro Ser Gly Cys Gly Gly Arg
 1               5                  10

<210> 17
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 17
Tyr Phe Met Asp Pro Thr Ser Gly Cys Gly Gly Arg
 1               5                  10

<210> 18
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 18
Ala Gly Ser Leu Ala Gly Ser Leu Asp Pro Ala Gly Ser Leu Ala Gly
 1               5                  10                  15
Ser Leu Arg

<210> 19
<211> 18
<212> DNA
<213> Artificial Sequence

```
<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 19
gattagccac gtcgccgt                                              18

<210> 20
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 20
gcatatagct agctctcg                                              18

<210> 21
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 21
gacgacggcg acgtggctgc gc                                         22

<210> 22
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 22
acggcgacgt ggctaatc                                              18

<210> 23
<211> 11
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct
```

<400> 23
cgtcatcgta g                                                      11

<210> 24
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<221> VARIANT
<222> 1-15
<223> Xaa = any amino acid

<400> 24
Cys Phe Xaa Xaa Xaa Xaa Xaa Asp Pro Xaa Xaa Xaa Xaa Xaa Arg
 1               5                   10                  15

<210> 25
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<221> VARIANT
<222> 1-35
<223> Xaa = any amino acid

<400> 25
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Pro Xaa Xaa Xaa Xaa Xaa
 1               5                   10                  15
Xaa Xaa Xaa Xaa Xaa Asp Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa
            20                  25                  30
Xaa Xaa Xaa
        35

<210> 26
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<221> VARIANT
<222> 1-34
<223> Xaa = any amino acid

```
<400> 26
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Pro Xaa Xaa Xaa Xaa Xaa
 1               5                   10              15
Xaa Xaa Xaa Xaa Xaa Phe Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa Xaa
            20          25              30
Xaa Xaa
```

```
<210> 27
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 27
Ala Gly Ser Leu Ala Gly Ser Leu Asp Pro Arg
 1               5                   10
```

```
<210> 28
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 28
Cys Gly Trp Ala Gly Ser Asp Pro Leu Ala Gly Ser Leu Arg
 1               5                   10
```

```
<210> 29
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 29
Cys Gly Trp Ala Gly Ser Leu Asp Pro Ala Gly Ser Leu Arg
 1               5                   10
```

```
<210> 30
<211> 14
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 30
Cys Gly Trp Ala Gly Ser Leu Ala Asp Pro Gly Ser Leu Arg
 1               5                   10

<210> 31
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 31
Cys Gly Trp Ala Gly Ser Leu Ala Gly Asp Pro Ser Leu Arg Cys Gly
 1               5                   10                  15
Trp Ala Gly Ser Leu Ala Gly Ser Asp Pro Leu Arg
            20                  25

<210> 32
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 32
Cys Gly Trp Ala Gly Ser Leu Ala Gly Ser Asp Pro Leu Arg
 1               5                   10

<210> 33
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; Note=synthetic
      construct

<400> 33
Arg Leu Ser Gly Ala Asp Pro Leu Ser Gly Ala Trp Gly Cys
 1               5                   10